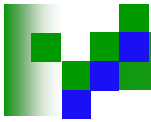


A decorative graphic consisting of a grid of squares in various shades of green and blue, arranged in a pattern that tapers to the left.

Review of Proposed National Ambient Air Quality Standards for Ozone

By
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September 6, 2007



Overview and Schedule

- Schedule for ozone NAAQS review
 - Proposal signed-June 20, 2007
 - Public Hearings being held
 - **Final Rule to be signed by March 12, 2008 (consent decree)**
- Recap of current ozone NAAQS
- New Health Evidence
- Proposed Revisions to ozone NAAQS
- Possible impacts on Massachusetts
- Timeline



Current 8-Hour Ozone Standard

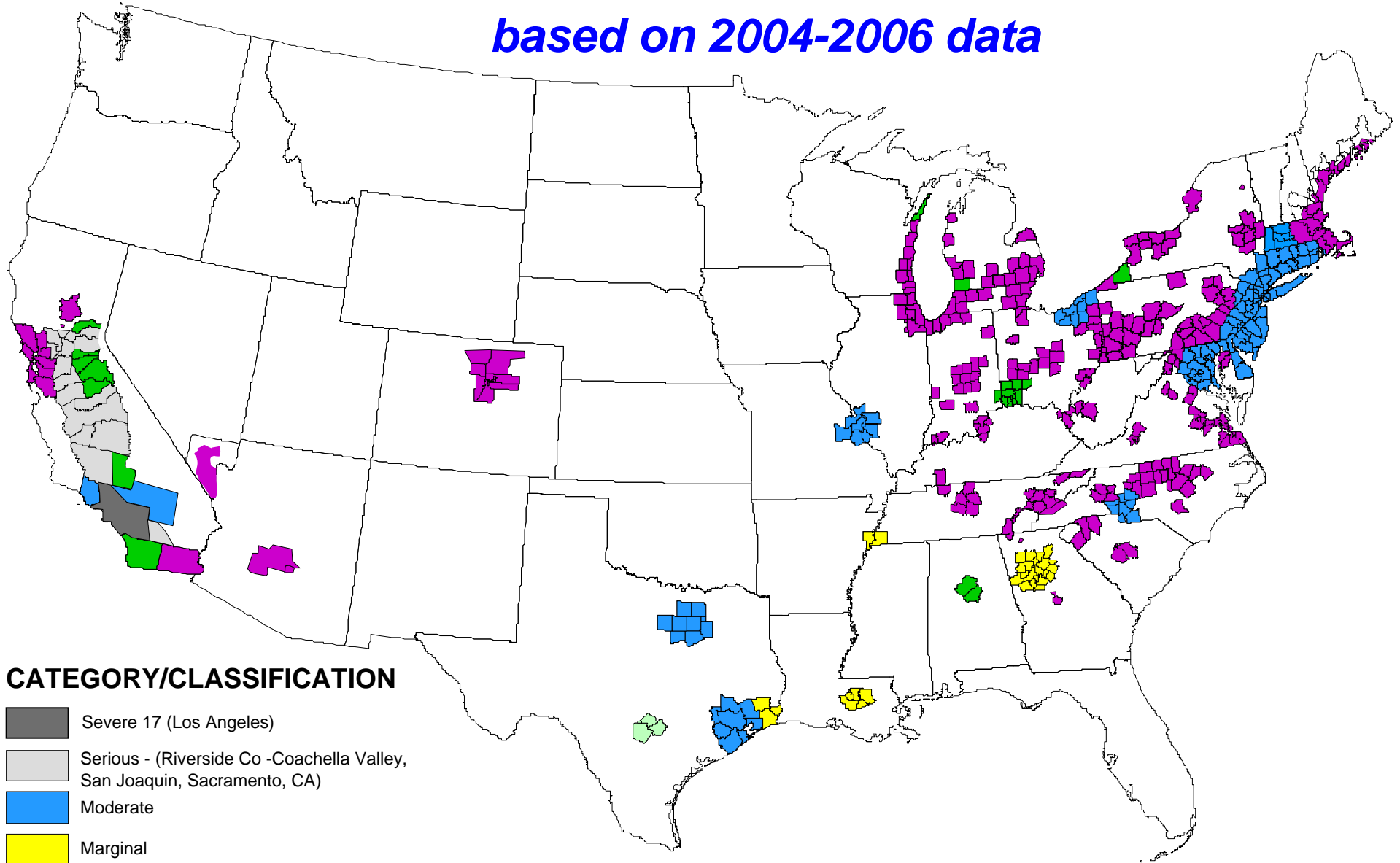
- In 1997, EPA made the ozone standard more stringent, set at 0.08 ppm based on an 8-hr average:
 - Because of rounding, these standards are effectively 0.084 ppm.
 - An area attains the current standards if: the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration measured at each monitor does not exceed 0.084 ppm
- EPA final nonattainment designations were effective in June 2004
 - Phase 1 implementation rule published April 30, 2004
 - Phase 2 implementation rule published Nov. 29, 2005
- States plans were due to EPA on June 15, 2007



New Health Evidence in This Review

- New clinical studies
 - Show clear and compelling evidence of adverse lung function and respiratory symptom responses in **healthy** adults from exposure to O₃ at levels as low as **0.060 ppm**
- New epidemiological studies
 - Numerous studies add to previous evidence of O₃-related respiratory morbidity effects (lung function decrements, hospital admissions, emergency department visits)
 - Multi-city studies and three meta-analyses provide evidence of a robust association between ambient O₃ and **mortality**
 - Report effects at levels well below the level of the current standard
 - No clear evidence regarding threshold: if a population threshold does exist, likely well below level of current standard and possibly within range of background concentrations
- Additional information on sensitive groups
 - Evidence indicates that people with asthma, especially children, experience more serious effects including larger lung function decrements, increased respiratory symptoms, increased airway responsiveness, and greater inflammatory responses
 - **Thus, studies of healthy subjects likely underestimate O₃-related effects on asthmatics and other sensitive groups**

Status of 8-hour Ozone Areas based on 2004-2006 data



CATEGORY/CLASSIFICATION

- Severe 17 (Los Angeles)
- Serious - (Riverside Co -Coachella Valley, San Joaquin, Sacramento, CA)
- Moderate
- Marginal
- Marginal (EAC Greensboro, NC)
- Subpart 1 (Basic)
- Subpart 1 EAC (Basic)

Areas attaining based on preliminary 2004-2006 data

Proposed Revisions to the Ozone Standard

- On June 20, 2007, EPA proposed revisions to the National Ambient Air Quality Standards (NAAQS) for ground-level ozone.
- The law requires EPA to review the scientific information and the standards for each pollutant ***every five years***, and to obtain advice from the Clean Air Scientific Advisory Committee (CASAC)
- The proposed revisions reflect new scientific evidence about ozone and its effects on people and the public welfare
- The proposed revisions would affect two types of ozone standards:
 - *Primary standards* to protect public health
 - *Secondary standards* to protect public welfare and the environment
- **There is a 90 day public comment period-Still open**
- Agency will issue final rule by March 12, 2008-**(consent decree)**

Proposed Revisions to Primary Ozone Standard

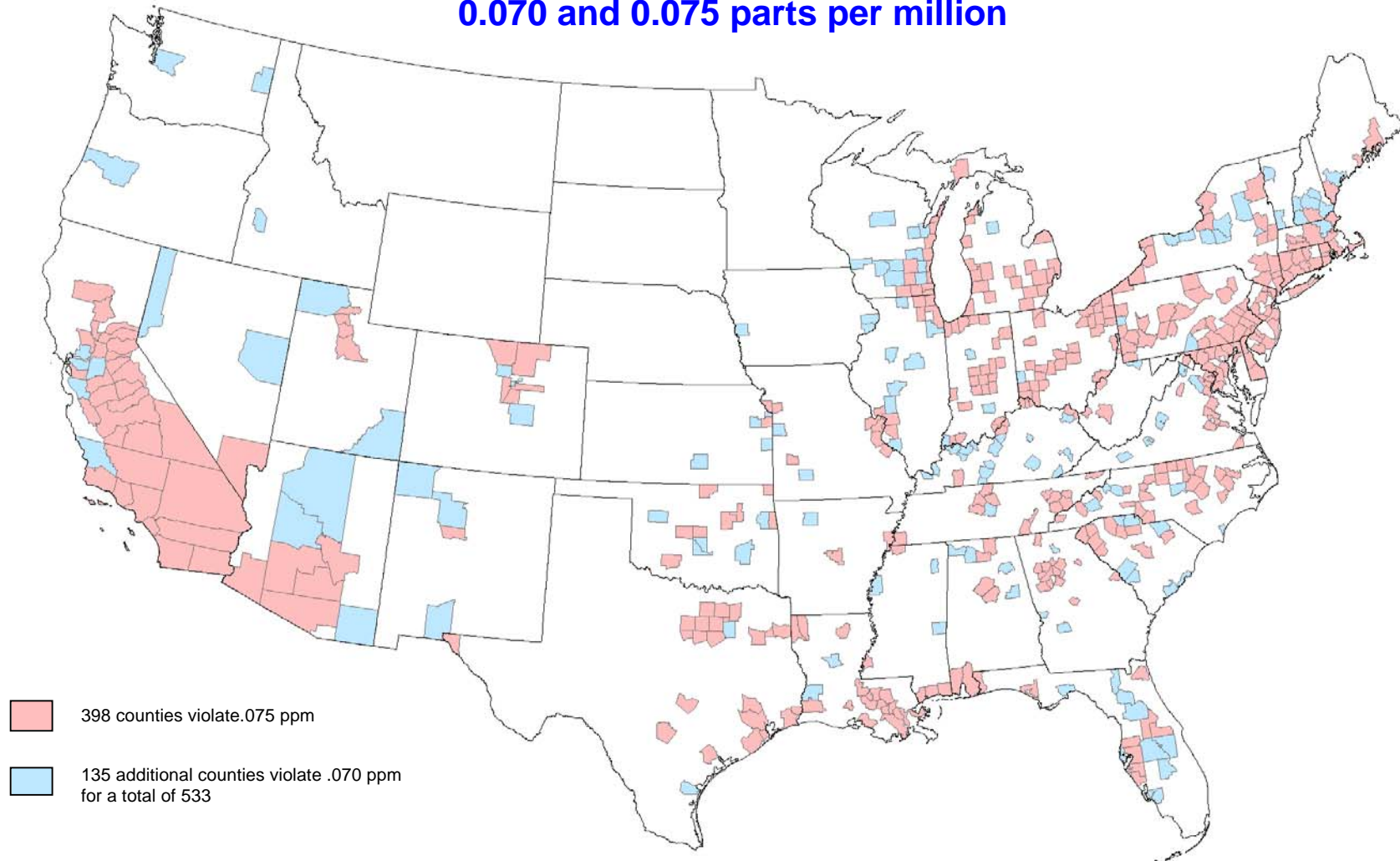
- Current science shows that the current 8-hour ozone standard is adequate to protect the public health.
- EPA is proposing to set the standard within the range of:
0.070 to 0.075 ppm
- EPA is requesting comment on a range of alternative levels for the standard, **from** 0.060 ppm **to** the level of the current standard
- EPA also proposes to specify the level of the primary standard to the third decimal place

Possible Impacts on Massachusetts

- A lower standard means a greater number of unhealthy air quality days, for example:
 - In 2005, there were 20 days in MA when ozone concentrations exceeded the existing standard, i.e, “unhealthy days”
 - Under a 0.075 ppm standard, there would have been 35 unhealthy days in MA in 2005
 - Under a 0.070 ppm standard, there would have been 49 unhealthy days in MA in 2005
- A lower standard also means more areas are impacted

Estimates are based on the most recent data (2003 – 2005). EPA will not designate areas as nonattainment on these data, but likely on 2006 - 2008 data which we expect to show improved air quality.

Counties With Monitors Violating Alternate 8-hour Ozone Standards 0.070 and 0.075 parts per million



Notes:

¹ 398 of 639 monitored counties violate 0.075, 533 of 639 monitored counties violate 0.070.

² No monitored counties outside the continental U.S. violate.

³ Monitored data can be obtained from the AQS system at <http://www.epa.gov/ttn/airs/airsaqs/>

Example Timeline if Ozone NAAQS are Revised

Milestone	Date
Signature—Final Rule	March 2008
Effective Day of Rule (60 days following publication in Federal Register)	Approximately June 2008
State Designation Recommendations to EPA	June 2009 (based on 2006-2008 monitoring data)
Final Designations Signature	Approximately June 2010
Effective Date of Designations	Approximately 2010
SIPs Due	Approximately 2013
Attainment Dates	2013-2030 depending on severity of problem

For more information...

- <http://www.epa.gov/groundlevelozone>